

Title (en)

Device for the reduction of emissions

Title (de)

Vorrichtung zur Reduzierung der Emissionen

Title (fr)

Dispositif pour la réduction des émissions

Publication

EP 2818224 A1 20141231 (EN)

Application

EP 14173385 A 20140623

Priority

IT MI20131049 A 20130624

Abstract (en)

The present invention relates to a device (1) for the reduction of emissions of pollutants, in particular sulphur oxides and fine particles, from a stream of combustion gases, in particular a dry sorbent injection DSI dry scrubber, comprising: - a first mixing and reaction section (2) comprising an inlet (3) for a stream of dirty gases containing at least a pollutant to be removed and a supply device (4) of a sorbent material in said stream of dirty gases, - a second reaction section (5), downstream of said first section (2) comprising at least a reaction chamber (6) of said stream of dirty gases with said sorbent material for generating the chemical/physical separation of said pollutant from said stream of gases, so as to obtain a cleaned stream of gases in which is dispersed in suspension a particulate generated by the reaction of said pollutant with said sorbent material, - a third removal section (7) of said particulate and of the particulate produced by unburned hydrocarbons, downstream of said second section (5), comprising at least a mechanical filter for the separation of said particulate from said cleaned mass of gases, wherein said mechanical filter of said removal section (7) comprises a plurality of ceramic filtering sleeves (8), each in fluid communication with a reaction chamber so that said cleaned stream of gases, in which is dispersed in suspension said particulate, crosses said filtering sleeves from the inside towards the outside, being moreover each filtering sleeve provided with a first cleaning device comprising at least a mobile brush (23) in contact with at least one inner face of said sleeve.

IPC 8 full level

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Citation (applicant)

- US 5215557 A 19930601 - JOHNSON DENNIS W [US], et al
- US 4676690 A 19870630 - ALLEN J DEWAYNE [US]

Citation (search report)

- [A] EP 0550905 A1 19930714 - AHLSTROEM OY [FI]
- [A] DE 10244660 A1 20040401 - BOLL & KIRCH FILTER [DE]
- [A] EP 0865815 A2 19980923 - HOKKAIDO ELECTRIC POWER [JP], et al
- [A] EP 0611590 A1 19940824 - ASAHI GLASS CO LTD [JP]
- [A] US 2008006155 A1 20080110 - SELLERS CHERYL L [US], et al

Cited by

CN113350916A; CN108868948A; CN107281881A; GB2553027A; CN113390096A; CN110354587A; CN108284093A; CN111603918A; WO2017221004A1; WO2023199117A1

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